

**Notice of Allowability**

Application No.

10/073,192

Examiner

N. Bhat

Applicant(s)

SHEN, WEN CHAO

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to filing date of 2-13-2002.
2. ☒ The allowed claim(s) is/are 1.
3. ☒ The drawings filed on 13 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

22

### **DETAILED ACTION**

1. The following is an examiner's statement of reasons for allowance:

The invention relates to a vacuum low temperature distilled pure water dispenser, which utilizes heat produced by a refrigeration system wherein water supplied from a water source, is boiled and vaporized at low temperature in a vacuum environment. Because of the vacuum environment only temperatures are required thus making it permissible to use the heat from the compression system of a refrigeration system. The apparatus includes the unique relationship between the water supply tank, communicating with reaction chamber via a water supply line, a pure water storage tank communicably located above the reaction chamber actuating pump located below the reaction chamber, an a refrigerating system having pipe lines extending and in heat exchange relation between the reaction chamber and the pure water storage tank, by closing the solenoid relief valve at one side of the reaction chamber and starting the actuating pump, a vacuum is produced in the reaction chamber which closes an automatic one way drain valve at the bottom of the reaction chamber and sucks water in from the water supply into the reaction chamber. A ball float valve assembly controls the volume of water sucked into the reaction chamber, heat from the compressor is transmitted to the reaction chamber to distill the water in the vacuum reaction chamber. The construction and arrangement of the apparatus as claimed has not been taught or fairly suggested either singularly or in combination by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 1764


accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Land teaches a compact energy efficient continuous flow distillation system which includes providing water through a filtering system and then distilling the water. Land does not teach the water dispensing apparatus in combination with a refrigeration system, which utilizes the heat from the refrigeration system in low temperature vacuum purification of water. Sutter teaches a water purification system which is a compact system for use in the home, marine and laboratory which includes a closed circuit that provides high pressure water for dispensing water which includes an eductor, a partial vacuum in the evaporator tank to permit boiling and steam generation therein below atmospheric pressure. Sutter does not teach using the water purification system in combination with the refrigeration system and valving system as claimed in the instant application.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
N. Bhat  
Primary Examiner  
Art Unit 1764